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Institute of Education
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NICK newsletter

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Nutritional Improvement for children in urban Chile and Kenya (NICK)

Welcome from NICK Principal Investigator Pat Pridmore

The NICK research team welcomes readers to our first newsletter. This is designed to complement the project website by providing information on recent and forthcoming project activities and research outputs available on the website (<http://nick.ioe.ac.uk>).

Chronic child malnutrition is now receiving increased international attention and it is a serious public health problem in both Kenya and Chile. In Kenya, child under-nutrition contributes to ill-health and death and jeopardizes the development of those who survive. By contrast, in Chile child obesity increases the risk of morbidity and mortality from chronic diseases such as diabetes and heart disease in later life. It is therefore recognised to be a 'ticking time-bomb'. In both countries malnutrition is especially severe in the cities where rapid, unplanned urbanisation has led to social stratification increasing social inequities and the development of informal settlements and slums.

In 2011 the WHO member states signed the Rio Declaration which endorsed the social determinants approach to health and health equity. The social determinants are factors that control the everyday living conditions into which children are born, grow and live. The NICK Project adopts this approach in seeking to help the cities of Valparaíso in Chile and Mombasa in Kenya to change the social determinants by supporting action research to broaden participation and strengthening accountability for nutrition.

A special thanks to our Partners in the University of Valparaíso in Chile and the International Centre for Reproductive Health in Mombasa, Kenya, who have worked on NICK to overcome the many challenges in

the field. Special thanks also to the steering group for their interest and support of the team's activities.

Over the past 18 months the researchers have carried out literature reviews and situational analyses which can be downloaded from the website (<http://nick.ioe.ac.uk>). Baseline anthropometric and household surveys have also been carried out and a multisectorial action research group has been established in each city. These groups have developed action plans and are now involved in three 6-monthly cycles of reflection, planning and action. The impact of their actions is being evaluated using an experimental design.

The research team meets annually for a workshop to share and reflect on their experiences, disseminate findings and plan activities for the next 12 months. This newsletter includes brief reports from the first two team workshops held in London in December 2010 and Valparaíso in January 2012.

We welcome contributions to the next newsletter. Space constraints preclude us from listing everything that is happening but we will do our best to include as much as we can. If you wish to receive this newsletter, or know others who do, please send an email to b.gougoulis@ioe.ac.uk.

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The NICK Research Team

Core team members

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Dr Beatriz Salgado Diez, University of Valparaíso,
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Dr Mary Amuyunzu-Nyamongo, International Centre
for Reproductive Health (ICRH)

Mr. Daniel Lang'o, International Centre for
Reproductive Health (ICRH)



Left to right: Barbara Gougoulis, Mary Amuyunzu-Nyamongo, Roy Carr-Hill, Gabriela Charnes Cars, Beatriz Salgado, Pat Pridmore, Tristan McCowan and Daniel L'ango

The NICK advisory group

Dr Kirsten Haveman, Counsellor (Health), DANIDA, Mozambique

Dr Shahnaz Kassam Sharif, Director of Public Health, Ministry of Public Health and Sanitation, Kenya

Professor Marleen Temmerman, Chair of the Board, ICRH, Kenya

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Professor Oscar Arteaga, Dean of the School of Public Health of the University of Chile

Dr Jaime Jamett Rojas, Director, Regional Secretariat of Health of Valparaíso, Chile



One of the study sites in Valparaíso



One of the study sites in Mombasa

First team workshop in London: 6-9th December 2010

All members of the research team came together for the first NICK team workshop at the Institute of Education, University of London, UK. The purpose of this workshop was:

1. To orientate the team to the project and build shared vision.
2. To present and critique the draft literature reviews and discussion papers.
3. To clarify roles and responsibilities and to develop detailed action plans for the next 12 months.
4. To further develop the two linked doctoral studies.

It was decided that the linked doctoral study in Kenya would develop a case study of child undernutrition in families affected by domestic violence living in an informal settlement in the city of Mombasa. In Chile the study will explore how to create a more enabling environment to improve the nutritional status of children attending public nurseries in the city of Valparaíso.

During the week of the team workshop the researchers also hosted a seminar at the London International Development Centre to launch the NICK project. This provided an opportunity to raise awareness of the need to tackle the problem of child malnutrition in a sustainable way and to share the work in progress in each study country with a broader research and development community.

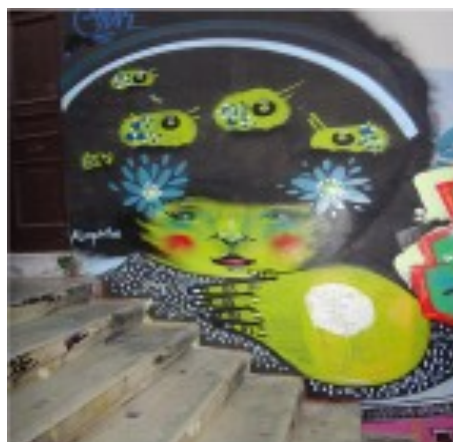
Second team workshop in Valparaíso: January 10th-13th 2012

All research team members attended this workshop in Valparaíso, Chile. The purpose of this workshop was:

1. To capture, analyse and share experiences of project implementation over the past year through the preparation and review of briefing papers.
2. To further analyse and discuss the baseline anthropometric and household survey data and capture the findings from the situational analyses.
3. To develop detailed action plans for the project work in Chile and Kenya over the next 12 months.
4. To provide supervisory support for the doctoral studies.
5. To disseminate project findings to a broader research and development community including the Chile advisory group members and policy makers.
6. To make a field visit to the intervention and control areas.



The team workshop with members of the action research group



The action research groups in Mombasa and Valparaíso

The NICK researchers have worked with a wide range of stakeholders to help establish a multisectorial action research group in each city. They are now using critical pedagogy to facilitate these groups through three 6-monthly cycles of reflection, planning and action. These groups have used the data generated by the NICK researchers from the literature reviews, situational analyses and baseline surveys to inform their multisectorial action planning. The researchers are monitoring implementation of the activities in these action plans and feeding this information back to the groups so that they can revise their action plans at the end of each cycle. The researchers will evaluate the impact on child nutritional status of the activities carried out by the action research groups using a controlled design.

In 2010 the Division of Nutrition in the Kenyan Ministry of Public Health and Sanitation (MOPHS) and the development partners formed a National Nutrition Technical Forum (NNTF) to co-ordinate all nutrition activities in Kenya. One of its activities has been to promote the establishment of urban nutrition working groups in major cities and the first of these groups was formed in Nairobi in 2010. With support from the NICK researchers a second group was formed in Mombasa in 2011 which acts as the action research group for the project. It has 13 members drawn from the MOPHS, Medical Services, Education, Office of the President, Agriculture, Water, provincial administration, Coast Development Authority, Mombasa Water and Sewerage Company and CSOs.



Some members of the NICK PAR group in Mombasa at their first workshop in July 2011.

In Chile the action research group the members are the regional secretary of health, teachers from four nurseries, members of the municipal council, and primary health centres, the National Board of Nurseries, the University of Valparaíso and the Association of Street Markets and Artesanal Fishermen of Valparaíso.



Some members of the action research group in Valparaíso meeting in January 2012.

The Literature Reviews and Discussion Papers

Seven papers have been prepared within the initial work programme of NICK to identify what is already known about the social determinants of child malnutrition in urban informal settlements and effective ways to tackle the problem. The titles and abstracts from the papers are presented below.

Nutritional improvement for children in poor urban areas of developing countries: A cross national review of the evidence for action on the social determinants (Pat Pridmore)

The findings from this structured review of the international literature confirm that the nutritional status of children living in urban informal settlements is influenced by a wide range of social determinants including:

- the need to buy poor quality foods at higher prices from small local shops;
- little time to prepare food, no suitable space for cooking and no money for cooking fuel;
- reduced spending on food due to competing demands for transport, rent and remittances to relatives;
- spending on televisions, cars and so-called 'fast foods';
- social norms and child feeding practices that associate large body size with power, beauty, and affluence;
- domestic violence against mothers and crime leading to stress and maternal depression;
- reduced physical activity linked to more sedentary lifestyles and lack of safe recreational spaces;
- weak capacity of local government and civil society for advocacy to create meaningful participation;
- poor governance leading to lack of equitable urban planning, access to public services and employment;
- lack of control over markets and food companies who are unsupportive of social health and nutrition goals.

Studies have shown that to change the social determinants of malnutrition interventions need to be complex and multisectorial and to operate at multiple levels. Consequently they cannot be carried out by any sector alone and need cross-sectoral collaboration. In urban areas, multisectorial teams at the municipal level are uniquely positioned to play a leading role in designing and implementing such interventions focused at the population level to improve health equity and nutritional status of children and families living in the informal urban settlements.

Social determinants of child undernutrition in urban informal settlements in Kenya (Daniel Lang'o)

The findings from this review paper confirmed that the problem of child undernutrition is especially severe in Kenya where more than one in three children under 5 years are stunted (low height for age) and poor urban children are especially at risk.

Whilst poverty is recognised to be the main driver of child undernutrition the key social determinants of poverty were found to be complex and interrelated. These determinants include having many dependants needing care; ill health and expenses related to health; the loss of regular employment in the formal sector; lack of access to safe water and sanitation; early pregnancy and low educational levels; lack of antenatal care and short birth spacing; poor childcare practices; frequent diseases and domestic violence.

Although evidence to show a link between child undernutrition is scarce it has been suggested that even where there is no food insecurity, parental stress may lead to poor child nutritional outcomes as a result of poor child care and feeding.

Some of the suggested strategies for addressing domestic violence and promoting good nutrition in informal settlements are fostering social cohesion, promoting community development and employment opportunities and creating safe recreational spaces. To be successful however, such strategies need to be informed by a detailed understanding of the complex relationships within families and of the local context.

Addressing child nutrition in informal settlements in Kenya (Mary Amuyunzu-Nyamongo)

The findings from this review paper confirmed that urban populations are growing rapidly in Africa and that the majority of urban residents live in informal settlements characterized by high poverty levels, personal insecurity and food insecurity. In Kenya the food and financial crises and social unrest following the 2008 elections have focused attention on the needs of the urban poor and this review has identified several factors contributing to poor child nutrition. These factors include: low levels of exclusive breast-feeding; poor complementary feeding; poor child care practices; high levels of micronutrient deficiencies that impede proper growth and development; lack of a policy and implementing framework for nutrition interventions in the country; and weak capacity in-country to manage nutritional aspects of emergencies. In addition, cultural aspects, including approaches to food preparation and perceptions regarding the appropriate food for children, negatively impact child nutrition.

The implications of these findings for the work of the NICK Project are that the multisectorial Urban Nutrition Working Group in Mombasa which is the action research group spearheading the implementation of NICK should address a wide range of measures. These measures include increased access to food, which would require interventions that improve household in-come to allow for the purchase of food (this is a major barrier considering that most urban people are net-purchasers of food); increased access to health services through voucher schemes and other subsidies; improved daily living conditions, including the determinants for poor health and nutrition – ensuring access to clean water for consumption and a clean environment; use of community structures to implement health promotion interventions such as education and advocacy for proper nutrition and diets for children; advocacy for informal settlements to become part and parcel of county and national development plans.

Optimizing the impact of social determinants of health on exposed populations in urban settings in Chile (Gabriela Charnes)

This review paper presents an analysis of the documentation on the Healthy Urbanisation Project in Chile (known as the HUP Chile), which was implemented from 2006-2009 with the aim of "Optimizing the Impact of Social Determinants of Health on Exposed Populations in Urban Settings". The author of this paper was the Technical Director of the HUP Chile between 2007 and 2009.

The first stage of the project, in 2006, was financed and sponsored by the WHO Health Development Centre in Kobe (WKC), Japan and carried out by the Faculty of Psychology of the University Diego Portales (UDP) and the School of Public Health at the University of Chile. The second stage, financed by the Chilean Ministry of Health, was conceived as an upscaling process to 9 regions of the country. It was implemented between 2007 and 2009, by an interdisciplinary team led by the Faculty of Psychology at the University Diego Portales.

The purpose of this paper is to give an overview of the different phases and methodological challenges faced by the HUP Chile and to share information and insights. It also reviews some of the lessons learned from the WHO HUP and HUP Chile experience, analyzing the difficulties encountered in the different phases of implementation.

Identifying and tackling the social determinants of child malnutrition in urban informal settlements and slums in Chile (Beatriz Salgado Diez)

Child obesity has now reached epidemic levels in many countries and the children in Chile have the highest levels of overweight and obesity in Latin America.. This literature review aims to identify the social determinants of child overnutrition in Chile and in the city of Valparaíso and to assess the effectiveness of any policies, initiatives and networks that are already in place in influencing these determinants. A multi-causal approach is essential to understand the problem, including not only behavioural causes but also familial, social, cultural and economic ones. These causes arise from the transition to urban living, a process lead by industrialization and rural migration to cities, linked to market-based economic growth, the consequent consumerist society and the associated urbanization process. The impact of these changes is greater in lower income families because they have fewer possibilities to choose healthy food and live an active life.

The interventions conducted in Chile have been developed and implemented through Primary Health Care Centres and schools. All of them have similar strategies which include: nutrition education, improving physical activity, reducing consumption of unhealthy food during school hours and community-based nutrition promotion activities. Most of these interventions are at a national level and have not been evaluated. There have been at least five Chilean school-based research studies published in the last decade, one experimental and four quasi-experimental. The results indicate that with the proper levels of accuracy, the more long term interventions had better results in reducing overweight. There is a gap that has not been well explored related to social determinants and environmental conditions inside the communities where those children and their families are living. This could be an important consideration for the further implementation of the NICK Project in Valparaíso.

Transforming community participation (Tristan McCowan)

In recent decades ‘participation’ has commanded at the same time widespread acceptance and determined critique. John Gaventa, for example, has shown how community participation needs to be seen in conjunction with reforms to national governance, addressing simultaneously the strengthening of citizen participation and voice, and the accountability and responsiveness of government.

Participation can be seen to have a number of benefits and justifications. It can be considered a fundamental human right, and in that sense not dependent on any benefits accrued. It may also have intrinsic value, being enjoyable, a source of positive contact with other community members and an opportunity for self-expression. Mostly, however, participation is seen in terms of its instrumental value in achieving the object of a development project or enhancement of democracy. Through participation, individuals can develop attributes such as capacity for deliberation, management skills, democratic values, sense of efficacy, inclusive attitudes and public speaking skills; communities, in turn, benefit from more effective communication, enhanced ability to keep government to account, social cohesion and social capital.

But how do we enter into this virtuous cycle? Education of course is fundamental here. Only when people develop the required knowledge, skills and values can participation be effective in achieving both practical impact and deeper enhancement of democracy. In this, attention is needed not just to the existence of educational opportunities, but also to the kind of education provided – requiring, as proposed by Paulo Freire and others, an education that is attentive to critical understanding of social reality and the capacity for action.

Nutritional improvement for children in poor urban areas of developing countries: Approaches to analysis of outcome and cost effectiveness for impact evaluation and possibilities for monitoring (Roy Carr-Hill)

This paper was written to guide the discussions held at the first team workshop in London to further develop the methodology for the NICK research. It starts with a discussion of how to make an evaluation as rigorous as possible through constructing the counterfactual to address attribution and how to address issues of cost effectiveness. It then goes on to consider in more detail the selection of the study sites, the overall approach and methods of data collection, and the framework for analysis. It briefly discusses the implementation strategy and then provides a more detailed discussion on monitoring taking account of outcomes, process measures and what costs to record.

The action research process

This involves the action research groups working together through three six-monthly cycles of reflection, planning and action using the following steps:

Cycle one

The first workshop for the action research group in each project city was facilitated by the NICK researchers to reflect, study and plan what needs to be done differently to introduce change. The following steps were followed:

- Critical reflection on inequities in child nutrition in Mombasa and what needs to be done differently to introduce change.
- Use of baseline data and situation analyses to conduct a systematic and rigorous enquiry to assess the local situation and identify stakeholders.
- Identification of major social determinants of child malnutrition in the study areas. Analysis of main pathways and promising entry points for intervention. What are possible limitations and sources of resistance to change?
- Participation to search for new ways of working together (collaborative learning mechanisms and direct participation mechanisms) that can transform the existing hierarchical and asymmetric work models) that can bring new solutions and identify opportunities and challenges.
- Strategic multisectorial planning by the PAR group to translate findings into an action plan to reduce inequities through governance and improve the daily living conditions of these children. Do the interventions proposed consider possibilities of replicability, sustainability, scalability, political feasibility, economic feasibility, and technical feasibility?
- Identification/design instruments for data collection to monitor and evaluate impact and the management of change process.

After this workshop the action research group implemented their action plans and the re-searchers collected data to document the process and monitor progress.

Cycle two

The second action research group workshop facilitated by the NICK research team was conducted as follows:

- Analysis of the data collected and critically reflect on challenges and progress to identify the emerging issues.
- Participation to search for new ways of working together and identify new opportune ties for improving action in the next cycle of action and reflection.
- Re-planning.

After this workshop the group implemented their revised action plans and the researchers collected data to document the process and monitor progress.

Cycle 3

Third group workshop facilitated by the NICK research team to Evaluate, Reflect, Study and Re-plan.

- Analysis of the data collected and critically reflect on challenges and progress to identify the emerging issues.
- Participation to search for new ways of working together and identify new opportune ties for improving action in the next cycle of action and reflection.
- Re-planning.

Implementation of revised action plans and data collection to document the process and monitor progress.

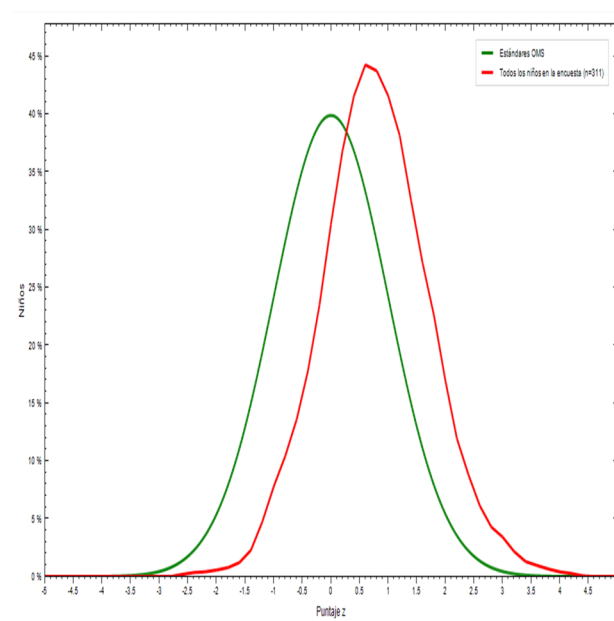
After the 3 cycles of reflection and action there will be a fourth and final group PAR workshop facilitated by the NICK research team to analyse the data collected and critically reflect on challenges and progress. The group will identify the emerging issues and extract lessons learned for policy development, for scaling up and for further improving action research.

At the end of these three cycles of action research the NICK researchers will collect the follow up anthropometric and household survey data and analyse it to evaluate the impact of the action research group's activities on child nutrition.

Preliminary findings from the baseline anthropometric surveys in the study sites

| | | | | |
|--|-------------|---------------|-------------|---------------|
| Severe stunting: about 21% for boys and 14% for girls Moderate stunting : about 44% for boys; 40% for girls with both rates higher in the intervention area | | | | |
| Comparison between National and Local Rates of Stunting (low height-for-age) in children aged 24-49 months | | | | |
| | Boys severe | | Girls | |
| | Se- vere | Moder- ate | Se- vere | Moder- ate |
| National DHS (%) | 16.0 | 37.4 | 12.3 | 33.1 |
| National MICS (%) | 15.7 | 37.9 | 13.7 | 32.6 |
| Chaani * (No.) | 196 | | 177 | |
| % | 22.4 | 45.9 | 13.0 | 41.8 |
| Kongowea** (No) | 208 | | 228 | |
| % | 20.2 | 41.8 | 15.4 | 39.0 |

+ = intervention area; **= control area



Z-score weight/height for the control group

NICK news

The research team has been very active in carrying out a wide range of activities to raise awareness of the NICK Project and disseminate early findings to engage with potential users and beneficiaries. These activities include:

- A seminar in December 2010 presented by the whole research team to launch the NICK Project at the London International Development Centre. Participants included staff from the colleges in the Bloomsbury Consortium, NGOs and DFID.
- A poster presentation by Daniel Lang'o at the 3rd Annual UWC HIV in Context Symposium held at the School of Public Health of the University of the Western Cape in Cape Town, South Africa, 28-29 March 2011.
- A paper presented by Pat Pridmore in April 2011 at the annual conference of the Comparative and International Education Society (CIES) held in Montreal, Canada.
- A presentation by Pat Pridmore in July 2011 at a summer school on Health Governance for health and health-related professionals in the East African Region - organised by the School of Oriental and African Studies, University of London, and held in Dar es Salaam, Tanzania.
- A presentation by Beatriz Salgado in August 2011 to the Ibero-American Network of School-based Health Promotion (RIPSE).
- A presentation by Pat Pridmore in August 2011 to a multidisciplinary group at the National Institute of Health (INH) in Maputo, Mozambique.
- A presentation given by Pat Pridmore in December 2011 at a symposium on Development Education held at the Institute of Education, University of London.
- A presentation given by the whole research team in January 2012 in the School of Public Health in the University of Valparaíso, Chile to national, regional and local health authorities, Chile advisory group members, representatives of the food markets and fishing industry, NGOs and colleagues and academics from different universities.
- Beatriz Salgado gave a presentation on nutrition course for primary health teams at the School of Nutrition, University of Valparaíso.
- Pat Pridmore gave a paper entitled 'Healthy urbanisation: tackling social inequity to improve child nutrition in Chile and Kenya' at the 55th Annual Conference of the Comparative and International Education Society (CIES), May 1st-5th, Montreal 2011.

NICK NEWS: Forthcoming outputs

A series of short briefing papers were presented for discussion at the second team workshop held in Valparaíso, Chile from January 9-13th. The aim was to summarise key issues from the review papers (available on the website at <http://nick.ioe.ac.uk>) and to highlight the achievements and challenges to implementation. The following briefing papers will be uploaded onto the NICK website in May 2012.

- A social determinants approach to tackling chronic child malnutrition in urban informal settlements in Chile and Kenya (Pat Pridmore)
- Nutritional improvement for children in poor urban areas of developing countries: Approaches to analysis of outcome and cost effectiveness for impact evaluation and possibilities for monitoring (Roy Carr-Hill)
- The Implementation process in Kenya: achievements and challenges (Mary Amuyunzu-Nyamongo)
- The social determinants of child overnutrition in Chile and the effectiveness of interventions to tackle the problem (Beatriz Salgado Diez)
- The actions, pathways and mechanisms in Chile through which broadening community and stakeholder participation can be made most effective in reducing child undernutrition in a sustainable way (Gabriela Charnes Cars)
- Transforming participation to improve child nutrition in Latin America (Tristan McCowan)
- The Implementation process in Chile: achievements and challenges (Beatriz Salgado Diez)
- Child undernutrition in families affected by domestic violence living in an informal settlement in the city of Mombasa, Kenya (Daniel Lang'o)

NICK NEWS: Forthcoming activities

The key activity over the next study year will be ongoing engagement/workshops with the PAR group in each project country and with the members of the project advisory group. Other activities will include:

London team members

- Preparation of a co-authored paper on the findings from the baseline surveys in Kenya and Chile for publication in the International Journal of Epidemiology.
- Participation by Pat Pridmore in an 'Open Space' meeting in London.

Kenya team members

- Interventions at the community level starting January 2012. This will include supporting self-help groups and facilitating access to skills-building according to needs.
- The 3rd PAR group workshops are scheduled for February 2012 and the 4th one in August 2012.
- A sensitization meeting that will bring together actors from the municipal council, provincial and district administration and non-state actors. This meeting will be held in June 2012.
- Mary Amuzungu-Nyamongo will present a co-authored paper on NICK at the Global Health conferences in Finland (June 2012) and Thailand (July 2012)

Chile team members

- The PAR workshops began at the beginning of March 2012 and are scheduled on a monthly basis, during the year, to deepen the PAR working process. In November 2012 Beatriz Salgado will give a presentation at the Latin American Congress of Social Medicine in Montevideo, Uruguay. She will also co-present a seminar to students at the Institute of Education in London in March.

(The team is also planning to present papers at the next UKFIET conference in 2013 and the 20th

NICK literature reviews and discussion papers available on the website at <http://nick.ioe.ac.uk>

Pathways to Better Nutrition Series 1 (Literature reviews)

- **Identifying and tackling the social determinants of child malnutrition in urban informal settlements and slums: a cross national review of the evidence for action** (Pat Pridmore)
- **Social determinants of child under-nutrition in urban informal settlements in Kenya** (Daniel Lang'o)
- **Identifying and tackling the social determinants of child malnutrition in urban informal settlements and slums in Chile** (Beatriz Salgado Diez)

Pathways to Better Nutrition Series 2 (Discussion papers)

- **Optimizing the impact of social determinants of health on exposed populations in urban settings in Chile** (Gabriela Charnes Cars)
- **Nutritional improvement for children in poor urban areas of developing countries: Transforming community participation: lessons from Latin America** (Tristan McCowan)
- **Experiences and lessons learned from influencing the social determinants to reduce child under-nutrition in Kenya: Approaches to analysis of outcome and cost effectiveness for impact evaluation and possibilities for monitoring** (Mary Amuzungu-Nyamongo)
- **Approaches to analysis of outcome and cost effectiveness for impact evaluation and possibilities for monitoring** (Roy Carr-Hill)

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